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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

NORTEL
NORTHERN TELECOM

September 25, 1996

Mr. William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, Room 222
Washington, DC 20554

RE: CC Docket No. 94-102 (E911 Access), Ex Parte File

Dear Sir:

Pursuant to the Commission's rules, please be advised that Erik Hansson, Senior Engineer, Northern Telecom, at the FCC's request, participated in the *ex parte* discussion held by the Commission on September 19-20 concerning the referenced Commission proceeding. A copy of the presentation that was used as talking points by Mr. Hansson is enclosed for the record.

If you have any questions, please communicate with the undersigned.

Sincerely,

Raymond L. Strassburger
Director, Government Relations
Telecommunications Policy

RLS/gj
Enclosure

cc: E. Hansson

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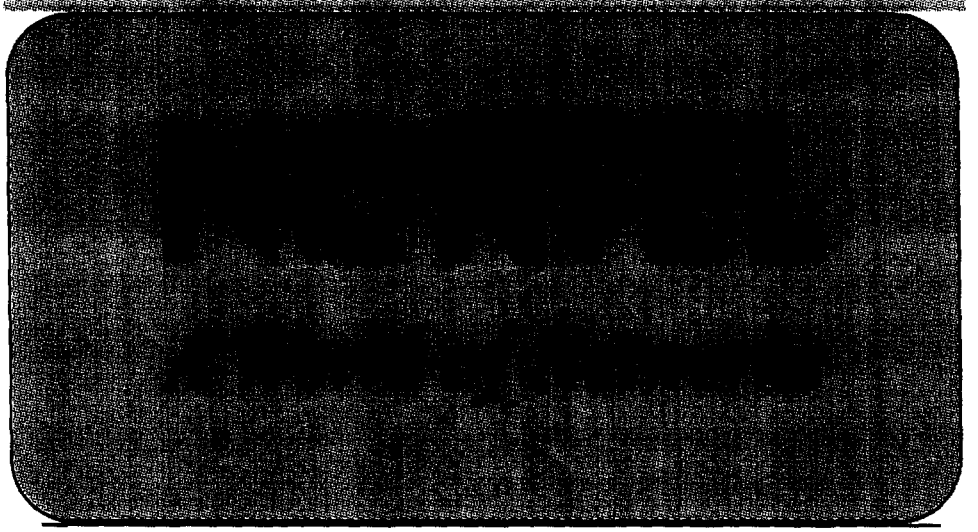

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September 19 & 20, 1996 FCC Ex Parte Meeting, Washington DC CC Docket No. 94-102 (E 9-1-1 Access) E. Hansson VG 2

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Topics Covered in my Discussion

- Highlights of Nortel's (Northern Telecom) Comments Filed January 9, 1995
- Summary of current PS/PBX State Regulations
- Background Information
  - Overview of PBX E 9-1-1 services access methods
- Issues of main Concern to Nortel

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Highlights of Nortel's 1/9/95 Comments

- [illegible] large PBX systems must be considered.
- Implementation of Called Party Disconnect Control as an alternative to call-back capabilities.
- Commission's proposed "Wireless Rules" vs. wireless extensions behind a PBX.
- Standardization of PS/ALI database information and format.
- Modernization of the E 9-1-1 networks and PSAPs to be ISDN compatible.
- Nortel supports uniform, nationwide standards and rules for PBX E 9-1-1 access.
- Nortel recommended that the Commission should utilize a Negotiated Rulemaking Procedure to resolve some of the more complex issues before the Commission in this matter.
- Some of the proposed rules may not be appropriate for inclusion in Part 68 of the Commission's Rules.
- [illegible] requirements for non-compliant systems should apply to [illegible] and be the responsibility of the system owner.

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Summary of some State PBX E 9-1-1 Regulations

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Residential shared multi-tenant	June 30, 96	Dec 31, 93	Sept. 1, 94	Jan 1, 97	Pending
Business shared multi-tenant	June 30, 96	Dec 31, 93	NO	Jan 1, 97	Pending
Business, not incl. shared multi-tenant	June 30, 96	NO	NO	Under study	Pending
Schools	June 30, 96	Dec 31, 93	Sept 1, 95	Jan 1, 97	Pending
Hospitals	June 30, 96	Dec 31, 93	NO	NO	Pending
Installed Base, all types	June 30, 99	NO	NO	Jan 1, 97 [illegible]	Pending

NOTES: 1. [illegible]

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PRIVATE SWITCH/PBX

Examples of E 9-1-1 Service Access Methods Applicable to Nortel's Meridian 1 Systems

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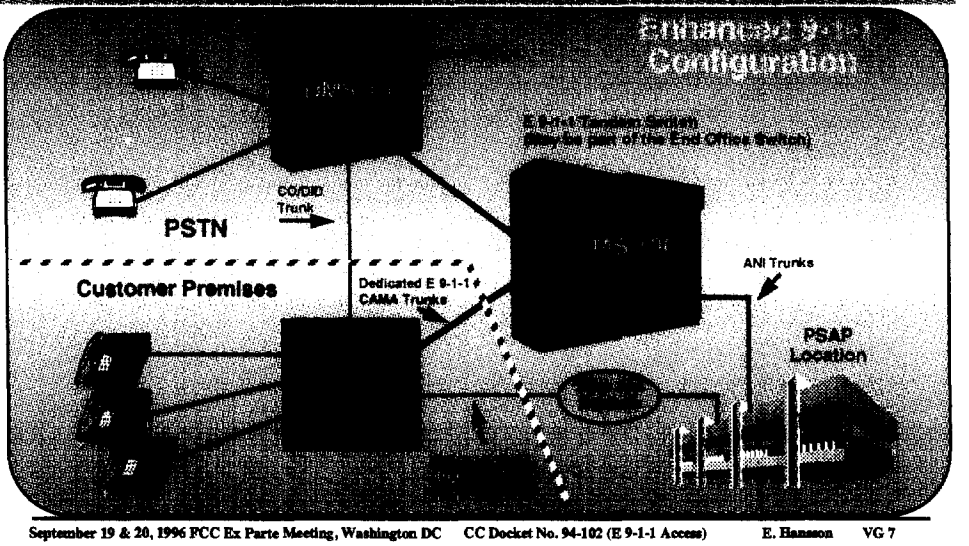
PBX Enhanced 9-1-1 Service Access



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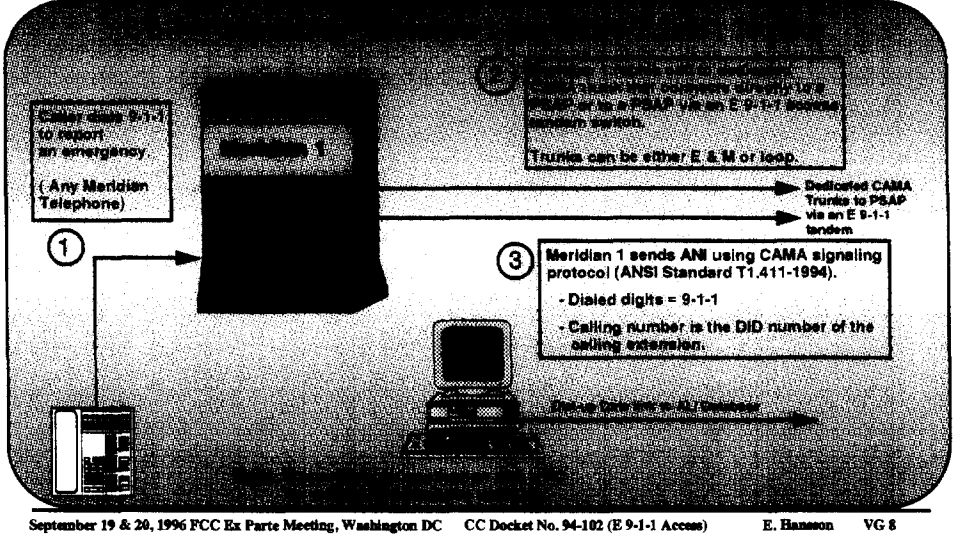
PBX Enhanced 911 Service Access



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PBX Enhanced 911 Service Access

ANI Issues

- **Dispersed PBX**
  - Comprised of CPS stations and Remote Peripheral Equipment.
  - Can cause PBX to overlap PSAP jurisdiction and/or area code boundaries.
  - Need to ensure:
    - » Area code or Info digit to be included in ANI.
    - » E 9-1-1 tandem can do selective routing based on ANI.
- **The CAMA/MF signaling format has limited information handling capability - ISDN BRI is needed for improved PBX - tandem - PSAP data transfer.**

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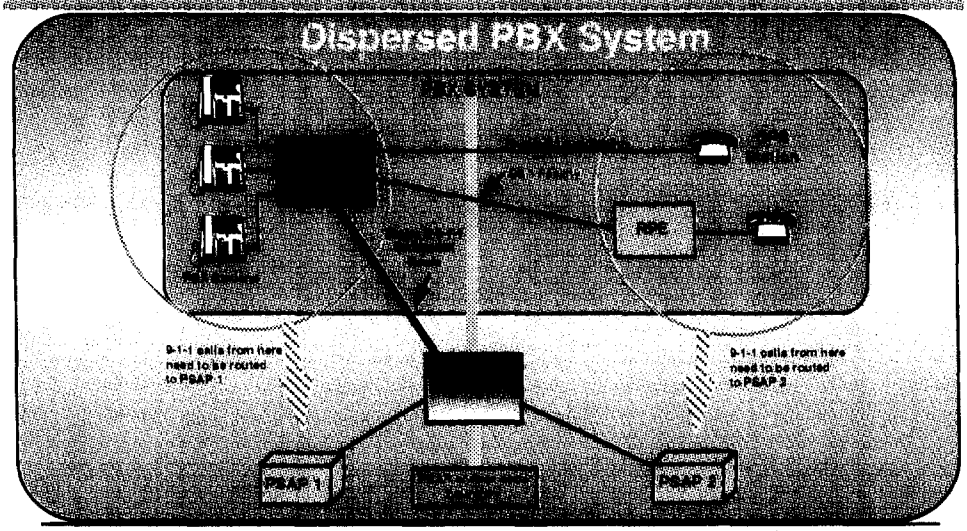
PBX Enhanced 911 Service Access

Dispersed PBX System



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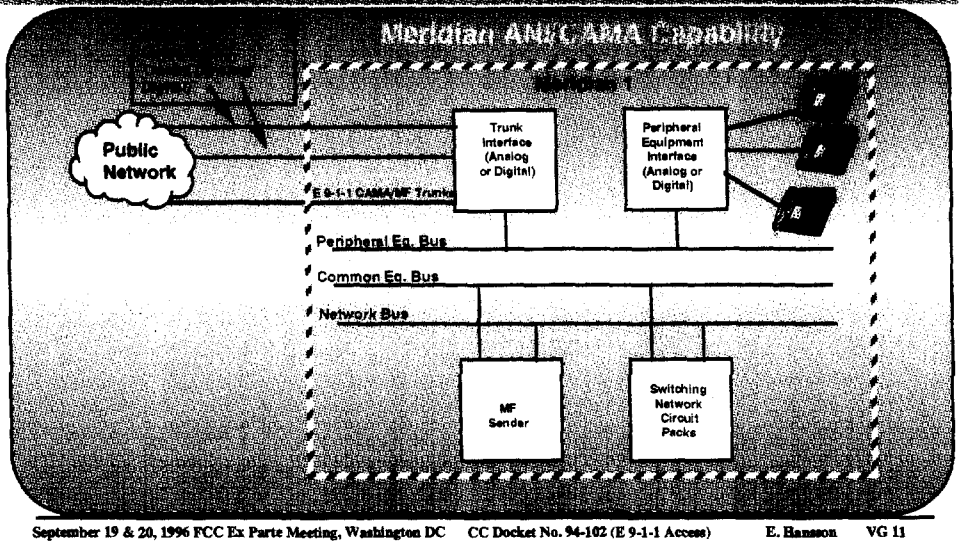
PBX Enhanced 911 Service Access



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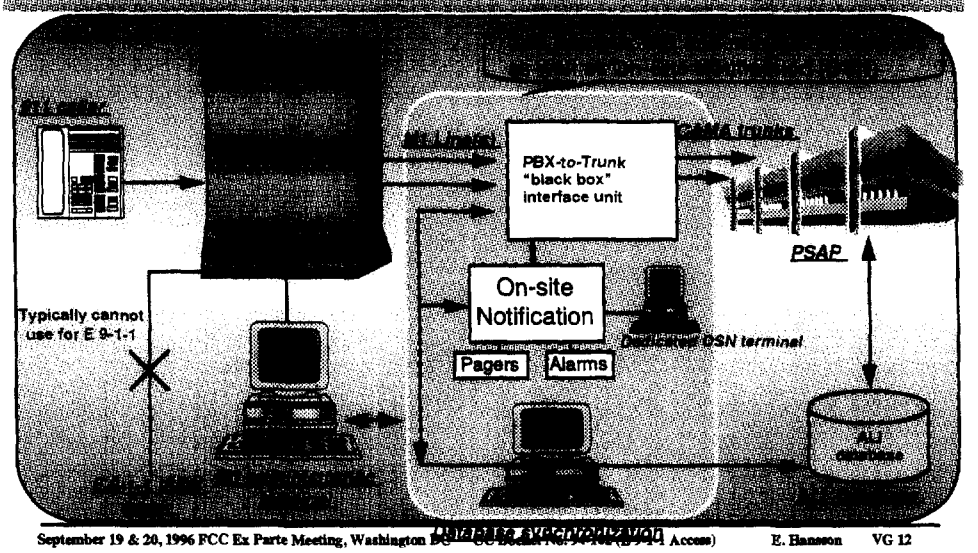
Hardware adjuncts for PBX E 9-1-1 Access



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Wireless PBX

Technical Challenges

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Wireless PBX - Technical Challenges

PCI Access to E 9-1-1 Services - Challenges

Some issues to be addressed for Wireless PBX regulatory compliance and access to E 9-1-1 services:

- How to determine where the portable unit is located.
- Provide/determine callback number.
- How to locate a "Twinned" caller (wired & wireless station have the same extension No.).
- Can system provide base station location to PSAP?
- If caller changes location, base station switching will occur, resulting in incorrect location information.
  - Portable may establish call via a base station on a different floor or building than where caller is located.
- CAMA/MF ANI signaling format limits the amount of information that can be sent from a PBX/PCI via a tandem to the PSAP.
- [illegible]

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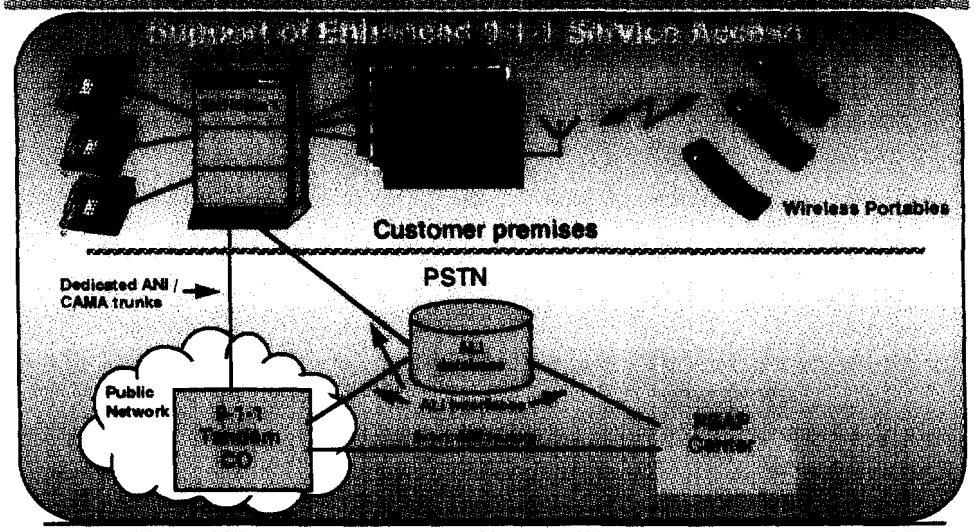
Wireless PBX - Technical Challenges



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PBX ENHANCED 9-1-1 SERVICE ACCESS

PBX/PS Issues

of

Main Concern to Nortel

Issues of Main Concern to Nortel

- State Rules vs. Proposed FCC Rules
  - State Rules vary and are different than the proposed FCC Rules
  - Nation wide, uniform Rules are required
- Lack of uniform PS/ALI database standards
  - LEC requirements vary in format, transmission methods, etc.
- Small vs. large systems issues
  - Some states, such as Illinois, exempt KTS systems in some applications.
  - Cost of providing E 9-1-1 access capabilities in small PBX/KTS systems may make such systems unattractive in some cases
- Wireless PBX issues
  - The Commissions Wireless Rules in Docket 94-102, released July 26, 1996, did not cover wireless PBX systems explicitly
  - The July, 1996 Ruling leaves the question of wireless PBX Rules unanswered

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PBX E 9-1-1
Acronyms and Abbreviations

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PBX E 9-1-1 Acronyms and Abbreviations

• ALI	Automatic Location Identification
• ANI	Automatic Number Identification
• CAMA	Centralized Automatic Message Accounting
• CTI	Computer Telephony Integration
• DS-1	Data Speed 1 (1.544 Mb/s facility)
• E 9-1-1	Enhanced 9-1-1 Emergency Service
• ISDN-PRI	Integrated Services Digital Network - Primary Rate Interface (1.544 Mb/s)
• ISDN-BRI	Integrated Services Digital Network - Basic Rate Interface(64 kb/s)
• LEC	Local Exchange Carrier
• MF	Multi-Frequency
• OPS	Off-Premises Station
• PCI	Personal Communications Interface
• PS	Private Switch (PBX)
• PSAP	Public Safety Answering Point
• PS/ALI	Private Switch Automatic Location Information
• RPE	Remote Peripheral Equipment
• Tandem	Telco Switch Application, also known as an E 9-1-1 Router